

REMARKS

In accordance with 37 C.F.R. §1.607, Applicants hereby request an interference with United States Patent Nos. 6,420,114 and 6,613,529, which issued to Bedilion on July 16, 2002 and September 2, 2003, respectively. To facilitate consideration of this request, Applicants attach a proposed PTO-850 "Interference Initial Memorandum" outlining the requested interference.

Applicants herein comply with the provisions of 37 C.F.R. §1.607, which require the following:

- (1) Identify the patent;
- (2) Present a proposed count;
- (3) Identify at least one claim in the patent corresponding to the proposed count;
- (4) Present at least one claim corresponding to the proposed count or identify at least one claim already pending in its application that corresponds to the proposed count, and, if any claim of the patent or application identified as corresponding to the proposed count does not correspond exactly to the proposed count, explain why each such claim corresponds to the proposed count; and
- (5) Apply the terms of any application claim,

- (i) Identified as corresponding to the count, and
 - (ii) Not previously in the application to the disclosure of the application.
- (6) Explain how the requirements of 35 U.S.C. § 135 (b) are met, if the application claim identified as corresponding to the proposed count was not present in the application until more than one year after the issue date of the patent.

37 C.F.R. §1.607(a)(1) – Identification of Involved Patents

In accordance with 37 C.F.R. §1.607(a)(1), Applicants identify U.S. Patent Nos. 6,420,114 and 6,613,529, issued to Bedilion ("the '114 patent" and "the '529 patent").

37 C.F.R. §1.607(a)(2) – Proposed Count

In accordance with 37 C.F.R. §1.607(a)(2), Applicants propose a count defined as follows:

Claim 1 of the Bedilion '114 patent

or

Claim 1 of the Bedilion '529 patent

or

Applicants' claim 28

or

Applicants' claim 93.

Applicants' claims 28 and 93 contain the exact language of claim 1 of the '114 patent and claim 1 of the '529 patent, respectively. For ease of consideration, claim 1 of the '114 patent (corresponding to Applicants' claim 28) and claim 1 of the '529 patent (corresponding to Applicants' claim 93) are set forth below, with emphasis added. As discussed in detail later in this request, these two claims differ only in the recitation of "array" and "microarray" (as shown in bold below) and there does not appear to be any patentable distinction between the two claims.

Claim 1 ('114 patent). An apparatus for mixing a fluid, the apparatus comprising:

a first substrate comprising a first inner surface functionalized with a **microarray** of reactive moieties;

a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;

at least one bubble disposed within said chamber; and

means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid.

Claim 1 ('529 patent). An apparatus for mixing a fluid, the apparatus comprising:

a first substrate comprising a first inner surface functionalized with an **array** of reactive moieties;

a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;

at least one bubble disposed within said chamber; and

means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid.

37 C.F.R. §1.607(a)(3) – Patent Claims Corresponding to Proposed Count

In accordance with 37 C.F.R. §1.607(a)(3), Applicants identify claims 1-30 of the '114 patent and claims 1-30 of the '529 patent as corresponding to the proposed count.

Claim 1 of the '114 patent and claim 1 of the '529 patent are expressly recited in the definition of the proposed count. Claims 2-30 of each of the '114 and '529 patents define the same patentable invention as the proposed count, as explained below.

37 C.F.R. §1.607(a)(4) – Application Claims Corresponding to Proposed Count

In accordance with 37 C.F.R. §1.607(a)(4), Applicants identify Applicants' claims 28, 30, 34, 35, 37, 38, 42, 44, 46, 48, 49, 51, 53, 54 and 93-106, as corresponding to the proposed count.

Applicants' claim 28 and 93 are expressly recited in the definition of the proposed count. Applicants' claims 30, 34, 35, 37, 38, 42, 44, 46, 48, 49, 51, 53, 54 and 94-106 define the same patentable invention as the proposed count, as explained below.

Claims Defining the Same Patentable Invention as the Proposed Count

37 C.F.R. § 1.601(n) provides, in part, as follows:

Invention "A" is the *same patentable invention* as an invention "B" when invention "A" is the same as (35 U.S.C. 102) or is obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A".

In the context of this request for interference, a claim (*i.e.*, "Invention A") is directed to the same patentable invention as a proposed count (*i.e.*, "Invention B") when the claim is the same or is obvious in view of the proposed count, assuming the proposed count is prior art with respect to the claim. Below, Applicants explain why the identified claims define the same patentable invention as the proposed count and should be designated as corresponding thereto.

Claims of the '114 and '529 patents

Claims 1-30 of each of the '114 and '529 patents define the same patentable invention as the proposed count and, therefore, should be designated as corresponding thereto for at least the following reasons:

1. **Claim 1.** Claim 1 of the '114 patent and claim 1 of the '529 patent are identical except claim 1 of the '114 patent recites a "microarray" whereas claim 1 of the '529 patent recites an "array." Indeed, during the prosecution of the '529 patent, Bedilion et al. noted that the claims of the '529 patent "are identical to those allowed in patent application 09/454,520 [the '114 patent] except that the term array [cites omitted] is used in place of 'microarray' to ensure that no extraneous limitation is read into the claim." See Paper No. 4, page 6, in the '529 file history (Attachment 1). Under the heading "Double Patenting" Bedilion et al. noted its concurrent submission of a terminal disclaimer (Paper No. 5) over the '114 patent (Attachment 2). In the context of the invention defined by the proposed count and in view of the prosecution history of the '529 patent (including a terminal disclaimer over the '114 patent), it is reasonable to conclude that there is no patentable distinction between an "array" and a "microarray" and that one would be anticipated or obvious in view of the other. Accordingly, claim 1 of the '114

patent and claim 1 of the '529 patent are directed to the same patentable invention and define the same or substantially the same subject matter.

2. **Claim 2.** Claim 2 of each of the '114 and '529 patents are essentially the same as claim 1 of the '114 and '529 patents, respectively, except for the following: 1) claim 2 of '114 patent recites a "microarray" whereas claim 1 of the '529 recites an "array"; 2) claim 2 of each patent recites the bubble is a magnetic particle, whereas claim 1 recites a "bubble"; and 3) claim 1 recites "moving the chamber so that the bubble moves relative to the fluid" whereas claim 2 recites "moving the bubble relative to the fluid."

As previously discussed, there does not appear to be any patentable distinction between an array and a microarray in the context of the invention of the proposed count. Moreover, it would have been obvious to one of ordinary skill in the art to use a magnetic particle to effect mixing of a fluid in the chamber because the use of magnetic particles to mix fluids was a well known concept. One of skill in the art would have been especially motivated to use magnetic particles to enhance mixing in the reaction chamber of the subject invention, which ordinarily involves small volumes of fluid. Likewise, in view of the proposed count reciting a means of moving a chamber to move a bubble, it would have been obvious to one of ordinary skill in the art to use a means for moving the magnetic particle to effect mixing, as recited in claim 2.

3. **Claims 3-30.** Claims 3-30 of each of the '114 and '529 patents are identical.

Claims 3-30 of the '114 and '529 patents define the same patentable invention as claim 1 of the '114 and '529 patents (*i.e.*, the proposed count), for at least the following reasons:

a. **Claims 3-6.** Claims 3 and 4 depend from claims 1 and 2, respectively, and further recite that the closed chamber has a thickness of less than about 2 millimeters. Claims 5 and 6 depend from claims 1 and 2, respectively, and further recite that the closed chamber has a thickness of less than about 250 microns. Reaction chambers with dimensions recited in claims 3-6 were well known in the art. See, for example, U.S. Patent No. 5,945,334, at Col. 11, lines 11-14, and WO 95/33846, at page 14, lines 41-43, which teach a cavity with a depth of about 0.07 inches (1.8 millimeters).^{1,2} See also U.S. Patent No. 5,910,288, at Col. 4, lines 45-50, which teaches a reaction chamber from about 1 micron to about 5 millimeters in thickness; from about 3 microns to about 1 millimeter in thickness; and from about 5 microns to about 100 microns in thickness.³ In view of these teachings, it would have been obvious to one of ordinary skill in art that the thickness (depth) of the reaction chamber could vary in thickness from 1 micron up to several millimeters in thickness. Such chambers are suited to accommodate the relatively small volumes of fluid ordinarily involved with methods involving surfaces functionalized with reactive moieties, as recited in the proposed count.

b. **Claims 7 and 8.** Claims 7 and 8 depend from claims 1 and 2,

¹ U.S. Patent No. 5,945,334, was filed on June 7, 1995, and issued on August 31, 1999, and therefore constitutes prior art against the '114 and '529 patents under 35 U.S.C. §§ 102(a) and (e).

² International Patent Publication No. WO 95/33846 was filed on June 8, 1995, and published on December 14, 1995, and therefore constitutes prior art against the '114 and '529 patents under 35 U.S.C. § 102(b).

³ U.S. Patent No. 5,910,288, was filed on July 10, 1997 and issued on June 8, 1999, and therefore constitutes prior art against the '114 and '529 patents under 35 U.S.C. § 102(b).

respectively, and further recite that both inner surfaces are functionalized with reactive moieties. Apparatuses comprising closed reaction chambers having both inner surfaces functionalized moieties were known in the art. For example, U.S. Patent No. 5,910,288 at Col. 8, lines 13-24, describes an "apparatus comprising a plurality of chemical, biochemical or biological moieties may be attached to at least one of the inner surface of the first surface or the inner surface of the second surface." (Emphasis added). In view of the proposed count, which recites an apparatus having first and second inner surfaces and fluid in contact with both surfaces, it would have been obvious to one of ordinary skill in the art that both inner surfaces could be functionalized with reactive moieties, as recited in claims 7 and 8.

c. **Claim 9.** Claim 9 depends from claim 1 and further recites that the bubble comprises a gas. As noted at Col. 1, lines 56-62, of the '114 patent (citing U.S. Patent Nos. 5,443,985 and 5,605,653), the use of bubbles comprising gas for mixing large volumes of liquids was well known in the art. Moreover, the proposed count recites the use of a bubble to effect mixing of a fluid. U.S. Patent No. 6,513,968, at Col. 3, lines 52-54, teaches that a "bubble" refers to a small ball of gas in a fluid. In view of the proposed count and the teachings of the prior art, it would have been obvious to one of ordinary skill in the art to use a bubble comprising gas in the method defined by the proposed count.

d. **Claim 10.** Claim 10 depends from claim 1 and further recites that the bubble comprises a gas selected from the group consisting of air, nitrogen, argon, or oxygen. As noted, with respect to claim 9, it would have been obvious to one of ordinary skill in the art to use a bubble comprising gas in the method defined by the proposed count. Using a gas selected

from the group consisting of air, nitrogen, argon, and oxygen to form the bubble in the apparatus defined by the proposed count would have been obvious choices to one of skill in the art depending on the particular application. As inert gases, the use of argon or nitrogen would be especially obvious to the skilled artisan. See U.S. Patent No. 5,945,334 at Col. 18, lines 51-54, and WO 95/33846 at page 25, lines 20-23., which teach the use of nitrogen to form bubbles and agitate the fluid as it flows through the system.

e. **Claim 11.** Claim 11 depends from claim 1 and further recites that the bubble comprises a non-miscible liquid. It would have been obvious to one of ordinary skill in the art to use a non-miscible liquid to form the bubble in the apparatus defined by the proposed count.

f. **Claim 12.** Claim 12 depends from claim 1 and further recites that the bubble is a solid particle. In view of the proposed count, which recites that the bubble moves to effect mixing, it would have been obvious to one of ordinary skill in the art that a solid particle could also be used to effect mixing. It is noted that claim 12 is inconsistent with the definition of "bubble" at Col. 2, lines 49-50, of the '114 patent as being "a small ball of gas or non-miscible liquid in a fluid." It is further noted that Bedilion et al. appear to use "bubble" and "solid particle" as mutually exclusive terms. See, for example, Col. 4, lines 14-20 and 24-25. Nonetheless, Applicants maintain that the use of a solid particle to effect mixing would have been obvious in view of the proposed count.

g. **Claim 13.** Claim 13 depends from claim 1 and further recites that the bubble is produced by introducing a volume of the fluid that is less than the total volume of the

closed chamber. The proposed count recites a fluid in contact with both inner surfaces and at least one bubble in the chamber. In view of the proposed count, it would have been obvious to one of ordinary skill in the art to produce a bubble in the chamber by introducing a volume of fluid that is less than the total volume of the closed chamber.

h. **Claims 14 and 15.** Claims 14 and 15 depend from claims 1 and 2, respectively, and further recite a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate. Apparatuses comprising a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate were known in the art. *See*, for example, U.S. Patent No. 5,910,288 at Col. 5, lines 6-14. Moreover, U.S. Patent No. 5,945,334, at Col. 16, lines 48-50, and WO 95/33846, at page 22, lines 28-29 teach a gasket or seal between the two surfaces to ensure a tight seal around the cavity. Because the proposed count recites a chamber adapted to retain fluid, it would have been obvious to one of ordinary skill in the art to use a flexible seal between the substrates defining the cavity.

i. **Claims 16 and 17.** Claims 16 and 17 depend from claims 1 and 2, respectively, and further recite a means for introducing fluid into the closed chamber. Col. 3, lines 52-55, of the '114 patent, discloses that "fluid may be introduced by centrifugal means, pressure means, vacuum means, positive displacement means, or other means known in the art." Example 1 of the '114 patent describes introducing reactive fluid through a notch on a rubber seal. Such means for introducing fluids into reaction chambers were well known in the art. *See*, for example, U.S. Patent No. 6,513,968, at Col. 8, lines 23-25, which discloses introducing a reactive fluid into a chamber by positive pressure. Likewise, U.S. Patent No. 5,945,334, at Col.

17, lines 18-21, and WO 95/33846, at page 23, lines 16-19, disclose introducing fluids into a reaction cavity by inserting a needle into a self-sealing check valve. Therefore, the recitation of a means for introducing fluid into the closed chamber does not render claims 16 and 17 patentably distinct from the proposed count.

j. **Claims 18-21.** Claims 18 and 19 depend from claims 1 and 2, respectively, and further recite that the first substrate and the second substrate are individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, ceramic, and metal, and a combination thereof. Claims 20 and 21 depend from claims 1 and 2, respectively, and further recite that the first substrate and the second substrate are individually comprised of glass. Apparatuses comprising a first substrate and a second substrate individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, ceramic, and metal were known in the art. See, for example, U.S. Patent No. 5,143,854 at Col. 11, lines 55-56;⁴ WO 93/22680 at page 10, lines 3-6;⁵ U.S. Patent No. 5,945,334 at Col. 4, lines 59-67 and Col. 5, lines 1-7, and WO 95/33846, at page 6, lines 15-29. In view of the proposed count, it would have been obvious to one of ordinary skill in the art to use glass, silicon or fused silica as a substrate because these were known as preferred substrates for biological polymer arrays. See U.S. Patent No. 5,945,334, at Col. 4, lines 66-67, and WO 95/33846, at page 6, lines 22-23.

k. Claim 22 depends from claim 1 and further recites that the means for

⁴ U.S. Patent No. 5,143,854, was filed on March 7, 1990, and issued on September 1, 1992, and therefore constitutes prior art against the '114 and '529 patents under 35 U.S.C. § 102(b).

⁵ International Patent Publication No. WO 93/22680 was filed on April 21, 1993, and published on November 11, 1993, and therefore constitutes prior art against the '114 and '529 patents under 35 U.S.C. §§ 102(b).

moving the bubble is selected from the group consisting of rotating the apparatus about an axis, rolling the apparatus, and reciprocally shaking the apparatus. Rotating, rolling and shaking were obvious and well known means for mixing fluids in reaction chambers. See, for example, U.S. Patent No. 5,945,334, at Col. 19, lines 43-49, and WO 95/33846, at page 26, lines 29-34. It would have been obvious to one of ordinary skill in the art to use well known means to move the bubble in view of the proposed count, which recites a means for moving the chamber so that the bubble moves.

1. **Claims 23-30.** Claims 23, 24, 25, 26, 27, 28, 29 and 30 recite a method for mixing a fluid, using an apparatus according to claims 1, 2, 3, 4, 5, 6, 9 and 22, respectively. The proposed count recites a chamber adapted to retain fluid, at least one bubble disposed in the chamber, and a means for moving the chamber to move the bubble. In view of the proposed count, it would have been obvious to one of ordinary skill in the art to use the apparatus for mixing a fluid by introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid. Therefore, claims 23-30 define the same patentable invention as the proposed count.

Applicants' claims

Applicants' claims 28, 30, 34, 35, 37, 38, 42, 44, 46, 48, 49, 51, 53, 54 and 93-106 define the same patentable invention as the proposed count and, therefore, should be designated as corresponding thereto.

Applicants' claims 28 and 93 are expressly recited in the definition of the proposed count and, therefore, define the same patentable invention as the proposed count.

Several of Applicants' claims correspond exactly to claims of the '114 and '529 patents. In particular, Applicants' claims 28, 30, 34, 37, 38, 42, 48, 49, 51, 53 and 54 correspond, respectively, to '114 patent claims 1, 3, 9, 13, 14, 16, 22, 23, 25, 29, and 30. Likewise, Applicants' claims 93-95, 97-99 and 102-106 correspond, respectively, to '529 patent claims 1, 3, 9, 13, 14, 16, 22, 23, 25, 29, and 30. Applicant's have set forth bases to have the identified '114 and '529 patent claims designated as corresponding to the proposed count and, therefore, Applicants' identified claims that are substantially identical to the '114 and '529 patent claims should also be designated as corresponding to the proposed count.

Applicants' claim 35 recites the bubble comprises nitrogen, which is also recited in claim 10 of the '114 and '529 patents. Applicants' have designated claim 10 of the '114 and '529 patents as corresponding to the proposed count and, therefore, Applicants' claim 35 should also be designated as corresponding to the proposed count.

Applicants' claims 44 and 100 recite that the first and second substrate are individually comprised of material selected from the group consisting of glass, silicon, fused silica, plastic and a combination thereof. Each of these materials are recited in claim 18 of the '114 and '529 patents, which Applicants have designated as corresponding to the proposed count. Accordingly, Applicants' claims 44 and 100 should also be designated as corresponding to the proposed count.

Applicants' claims 46 recites the first substrate is made of glass. In view of the proposed count, it would have been obvious to one of ordinary skill in the art to use glass as a first substrate because glass was known as a preferred substrate for biological polymer arrays. See U.S. Patent No. 5,945,334 at Col. 4, lines 66-67, and WO 95/33846, at page 6, lines 22-23.

37 C.F.R. §1.607(a)(5) –Applying Terms of Application Claims to Disclosure

Applicants' claims 28, 30, 34, 35, 37, 38, 42, 44, 46, 48, 49, 51, 53 and 54 are already pending in the application but have not yet been substantively examined. Applicants' claims 93-106 are added by a supplemental preliminary amendment filed concurrently herewith. Accordingly, pursuant to 37 C.F.R. §1.607(a)(5), Applicants apply the terms of these claims to the disclosure of the application in the table set forth below.

<u>Bedilion '114 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
1. An apparatus for mixing a fluid, the apparatus comprising: a first substrate comprising a first inner surface functionalized with a microarray of reactive moieties;	28. An apparatus for mixing a fluid, the apparatus comprising: a first substrate comprising a first inner surface functionalized with a microarray of reactive moieties;	Page 2, lines 18-21; Page 3, lines 2-6; Page 5, line 31 to Page 6, line 3; Page 6 lines 20-26; Page 7, line 29 to Page 8, line 6
a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;	a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;	Page 2, line 22; Page 3, lines 8-14; Figures 6, 18, 19, 20B, 21, 22 and 27B; Page 9, line 25; Page 10, lines 17-24; Page 12, lines 3-11; Page 24, line 2; Page 24, line 14; Page 24, line 31; Page 25, line 23; Page 26, line 19 to Page 27, line 5; Page 27, lines 7-8; Page 28, lines 1-8; Page 29, lines 12-13

<u>Bedillion '114 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
at least one bubble disposed within said chamber; and means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid.	at least one bubble disposed within said chamber; and means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 27, lines 26-27; Page 28, lines 3-6; Page 28, lines 15-26.
3. The apparatus of claim 1, wherein the closed chamber has a thickness of less than about 2 millimeters.	30. The apparatus of claim 28, wherein the closed chamber has a thickness of less than about 2 millimeters.	Page 16, lines 18-19
9. The apparatus of claim 1, wherein the bubble comprises a gas.	34. The apparatus of claim 28, wherein the bubble comprises a gas.	Page 10, lines 17-24 and 28-29; Page 28, lines 5-6
10. The apparatus of claim 1, wherein the bubble comprises a gas selected from the group consisting of air, nitrogen, argon, or oxygen.	35. The apparatus of claim 28, wherein the bubble comprises nitrogen.	Page 28, lines 5-6
13. The apparatus of claim 1, wherein the bubble is produced by introducing a volume of the fluid that is less than the total volume of the closed chamber.	37. The apparatus of claim 28, wherein the bubble is produced by introducing a volume of the fluid that is less than the total volume of the closed chamber	Page 10, lines 17-24; Page 28, lines 5-6
14. The apparatus of claim 1, further including a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate.	38. The apparatus of claim 28, further including a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate.	Page 9, line 25; Page 13, lines 4-7; Page 25, lines 5-6; Page 26, line 12
16. The apparatus of claim 1, further comprising means for introducing fluid into the closed chamber.	42. The apparatus of claim 28, further comprising means for introducing fluid into the closed chamber.	Page 13, lines 4-7; Page 13, line 12; Page 20, lines 12-15; Page 22, lines 20-24; Page 25, lines 25-26

<u>Bedillion '114 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
18. The apparatus of claim 1, wherein the first substrate and the second substrate are individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, ceramic, and metal, and a combination thereof.	44. The apparatus of claim 28, wherein the first substrate and the second substrate are individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, and a combination thereof.	Page 7, lines 5-11
20. The apparatus of claim 1, wherein the first substrate and the second substrate are individually comprised of glass.	46. The apparatus of claim 28, wherein the first substrate is comprised of glass.	Page 7, line 6; Page 7, line 10; Page 7, line 15; Page 26, line 31
22. The apparatus of claim 1, wherein the means for moving the bubble is selected from the group consisting of rotating the apparatus about an axis, rolling the apparatus, and reciprocally shaking the apparatus.	48. The apparatus of claim 28, wherein the means for moving the bubble is selected from the group consisting of rotating the apparatus about an axis, rolling the apparatus, and reciprocally shaking the apparatus.	Page 28, lines 27-29; Page 29, lines 13-19
23. A method for mixing a fluid, comprising: providing an apparatus according to claim 1; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	49. A method for mixing a fluid, comprising: providing an apparatus according to claim 28; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 28, lines 15-26
25. A method for mixing a fluid, comprising: providing an apparatus according to claim 3; introducing a fluid into the closed chamber,	51. A method for mixing a fluid, comprising: providing an apparatus according to claim 30; introducing a fluid into the closed chamber, introducing a	Page 10, lines 17-24; Page 28, lines 15-26

<u>Bedillion '114 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	
29. A method for mixing a fluid, comprising: providing an apparatus according to claim 9; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	53. A method for mixing a fluid, comprising: providing an apparatus according to claim 36; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 28, lines 15-26
30. A method for mixing a fluid, comprising: providing an apparatus according to claim 22; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	54. A method for mixing a fluid, comprising: providing an apparatus according to claim 48; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 28, lines 15-26

<u>Bedillion '529 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
1. An apparatus for mixing a fluid, the apparatus comprising: a first substrate comprising a first inner surface functionalized with an array of reactive moieties;	93. An apparatus for mixing a fluid, the apparatus comprising: a first substrate comprising a first inner surface functionalized with an array of reactive moieties;	Page 2, lines 18-21; Page 3, lines 2-6; Page 5, line 31 to Page 6, line 3; Page 6, line 20-26; Page 7, line 29 to Page 8, line 6
a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;	a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;	Page 2, line 22; Page 3, lines 8-14; Figures 6, 18, 19, 20B, 21, 22 and 27B; Page 9, line 25; Page 10, lines 17-24; Page 12, lines 3-11; Page 24, line 2; Page 24, line 14; Page 24, line 31; Page 25, line 23; Page 26, line 19 to Page 27, line 5; Page 27, lines 7-8; Page 28, lines 1-8; Page 29, lines 12-13
at least one bubble disposed within said chamber; and means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid.	at least one bubble disposed within said chamber; and means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 27, lines 26-27; Page 28, lines 3-6; Page 28, lines 15-26
3. The apparatus of claim 1, wherein the closed chamber has a thickness of less than about 2 millimeters.	94. The apparatus of claim 93, wherein the closed chamber has a thickness of less than about 2 millimeters.	Page 28, lines 5-6
9. The apparatus of claim 1, wherein the bubble comprises a gas.	95. The apparatus of claim 93, wherein the bubble comprises a gas.	Page 10, lines 17-24 and 28-29; Page 28, lines 5-6
10. The apparatus of claim	96. The apparatus of claim	Page 28, lines 5-6

<u>Bedilion '529 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
1, wherein the bubble comprises a gas selected from the group consisting of air, nitrogen, argon, or oxygen.	93. wherein the bubble comprises nitrogen.	
13. The apparatus of claim 1, wherein the bubble is produced by introducing a volume of the fluid that is less than the total volume of the closed chamber.	97. The apparatus of claim 93, wherein the bubble is produced by introducing a volume of the fluid that is less than the total volume of the closed chamber	Page 10, lines 17-24; Page 28, lines 5-6
14. The apparatus of claim 1, further including a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate.	98. The apparatus of claim 93, further including a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate.	Page 9, line 25; Page 13, lines 4-7; Page 25, lines 5-6; Page 26, line 12
16. The apparatus of claim 1, further comprising means for introducing fluid into the closed chamber.	99. The apparatus of claim 93, further comprising means for introducing fluid into the closed chamber.	Page 13, lines 4-7; Page 13, line 12; Page 20, lines 12-15; Page 22, lines 20-24; Page 25, lines 25-26
18. The apparatus of claim 1, wherein the first substrate and the second substrate are individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, ceramic, and metal, and a combination thereof.	100. The apparatus of claim 93, wherein the first substrate and the second substrate are individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, and a combination thereof.	Page 7, lines 5-11
20. The apparatus of claim 1, wherein the first substrate and the second substrate are individually comprised of glass.	101. The apparatus of claim 93, wherein the first substrate is comprised of glass.	Page 7, line 6; Page 7, line 10; Page 7, line 15; Page 26, line 31
22. The apparatus of claim	102. The apparatus of claim	Page 28, lines 27-29; Page

<u>Bedilion '529 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
1, wherein the means for moving the bubble is selected from the group consisting of rotating the apparatus about an axis, rolling the apparatus, and reciprocally shaking the apparatus.	93, wherein the means for moving the bubble is selected from the group consisting of rotating the apparatus about an axis, rolling the apparatus, and reciprocally shaking the apparatus.	29, lines 13-19
23. A method for mixing a fluid, comprising: providing an apparatus according to claim 1; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	103. A method for mixing a fluid, comprising: providing an apparatus according to claim 93; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 28, lines 15-26
25. A method for mixing a fluid, comprising: providing an apparatus according to claim 3; introducing a fluid into the closed chamber, introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	104. A method for mixing a fluid, comprising: providing an apparatus according to claim 94; introducing a fluid into the closed chamber, introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 28, lines 15-26
29. A method for mixing a fluid, comprising: providing an apparatus according to claim 9; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the	105. A method for mixing a fluid, comprising: providing an apparatus according to claim 95; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the	Page 10, lines 17-24; Page 28, lines 15-26

<u>Bedilion '529 Patent Claims</u>	<u>Applicants' claims</u>	<u>Support in the present application</u>
fluid to effect mixing of the fluid.	fluid.	
30. A method for mixing a fluid, comprising: providing an apparatus according to claim 22; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	106. A method for mixing a fluid, comprising: providing an apparatus according to claim 102; introducing a fluid into the closed chamber; introducing a bubble within the fluid; and moving the bubble in the fluid to effect mixing of the fluid.	Page 10, lines 17-24; Page 28, lines 15-26

37 C.F.R. §1.607(a)(6) – The Requirements of 35 U.S.C. § 135(b) Are Satisfied

In accordance with 37 C.F.R. §1.607(a)(6), Applicants have complied with the requirements of 35 U.S.C. §135 (b).

The Bedilion '114 patent issued on July 16, 2002 and, within one year, Applicants presented claims to the same or substantially the same invention as at least claims 1, 3, 9, 10, 13, 14, 16, 18, 20, 22, 23, 25, 29 and 30 of the '114 patent, thereby satisfying the requirement of 35 U.S.C §135 (b)(1). (See the Preliminary Amendment filed on July 12, 2003, and the table set forth above.)

The Bedilion '529 patent issued on September 2, 2003 and, within one year, Applicants presented claims to the same or substantially the same invention as claims 1, 3, 9, 10, 13, 14, 16, 18, 20, 22, 23, 25, 29 and 30 of the '529 patent, thereby satisfying the requirements of 35 U.S.C. §135 (b)(1). (See the Supplemental Preliminary Amendment filed concurrently

herewith and the table set forth above.)

Applicants further note that the application from which the '529 patent issued (USSN 09/195, 669 was published on November 28, 2002. See U.S. Published Application No. 2002/0177159, Claim 4 of the published '669 application corresponds substantially to the subject matter recite in Applicants' claim 28. Applicants' presented claim 28 on July 12, 2003, i.e., less than one year after the publication of the '669 application, thereby satisfying the requirements of 35 U.S.C. §135 (b)(2).

Applicants note that the application from which the '114 patent issued (USSN 09/454,520) was listed under the "Priority Data" of a PCT application (PCT/US00/42608) that published on June 21, 2001. See W0 01/43871 A2. Significantly, the United States is not listed as a "Designated State" on the PCT application. Because the international application does not designate the United States, the publication of the PCT application is not a "publication" under the provisions of 35 U.S.C. §122 (b) and, therefore, the provisions of 35 U.S.C. §135 (b)(2) are inapplicable.

In view of the above, Applicants have complied with the requirements of 35 U.S.C. §135(b).

Benefit of Earlier Filed Application

For the purpose of the requested interference, Applicants are entitled to the benefit of the June 8, 1994, filing date of its application Serial No. 08/255,682, which constitutes a constructive reduction to practice of the proposed count. As reflected in the table below, the '682 application

discloses an embodiment within the scope of Applicants' claim 28, which is expressly recited in the definition of the proposed count.

<u>Applicants' claim 28</u>	<u>Support in the '682 specification</u>
28. An apparatus for mixing a fluid, the apparatus comprising: a first substrate comprising a first inner surface functionalized with a microarray of reactive moieties;	Page 2, lines 21-25; page 3, lines 2-10; page 8, lines 10-19.
a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;	Page 2, lines 21-32; page 3, lines 2-10; page 11, lines 11-22, Figure 5A
at least one bubble disposed within said chamber; and means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid.	Page 11, lines 14-22.

37 C.F.R. §§ 1.601(m) and 1.608(b)

37 C.F.R. § 1.601(m) provides that a senior party in an interference is the party with the earliest effective filing date as to the count.

As noted, Applicants' present disclosure is entitled to the benefit of a filing date of June 8, 1994, i.e., the filing date of its '682 application. In comparison, the earliest possible effective filing date to which either the '114 patent or the '529 patent could be accorded benefit appears to be December 6, 1999, i.e., the filing date of Bedilion application serial no. 09/454,520.

Therefore, Applicants have an effective filing date 5½ years prior to the earliest possible effective filing date of the '114 and '529 patents.

In accordance with the provisions of 37 C.F.R. § 1.601(m), Applicants should be designated the Senior Party in the requested interference.

In view of Applicants' earlier effective filing date with respect to the Bedilion '114 and '529 patents, no showing under 37 C.F.R. § 1.608(b) is required.

37 C.F.R. §1.607(b) - Request to Proceed with Special Dispatch

In accordance with 37 C.F.R. §1.607(b), Applicants request that the Examiner proceed with special dispatch in declaring the requested interference.

Respectfully submitted,

AFFYMETRIX, INC.

Date: 1-27-04

By: 

Philip McGarrigle
Reg. # 31,395

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Bedilion et al.

Serial No 10/195,669

Filed: July 15, 2002

For: *Microarray Hybridization Chamber*

Group Art Unit: 1744

Examiner: Redding, David A.

Attorney Docket No. IN-0015-1

CERTIFICATE OF MAILING

I hereby certify that this copy is being deposited with the US Postal Service as First Class Mail in an envelope addressed to the Comm. for Patents, Washington, D.C. 20231 on December 17, 2002

Signed Richard Denton
Richard Denton

1744/17
✓

4/1
2/1
1/13/03

RESPONSE

The Commissioner for Patents
Washington, DC 20231

Dear Examiner Redding:

Thank you for the Office Action dated Sep 17, 2002. Please enter these amendments:

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IN THE CLAIMS

Please cancel pending claims 1-30, and add new claims 31-60 as follows:

1. ~~31~~. An apparatus for mixing a fluid, the apparatus comprising:

a first substrate comprising a first inner surface functionalized with an array of reactive moieties;

A1

a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;

at least one bubble disposed within said chamber; and

means for moving the chamber so that the bubble moves relative to the fluid to effect mixing of the fluid

Request for Declaration of Interference
USSN 10/619,224

2. ~~32~~¹. An apparatus for mixing a fluid, the apparatus comprising:

a first substrate comprising a first inner surface functionalized with an array of reactive moieties;

a substantially parallel second substrate also comprising a second inner surface, wherein said first and second inner surfaces bound a closed chamber there between, said chamber adapted to retain a quantity of fluid so that the fluid is in contact with both surfaces;

at least one bubble disposed within said chamber, wherein said bubble is a magnetic particle; and

means for moving the bubble relative to the fluid to effect mixing of the fluid

3. ~~33~~¹. The apparatus of claim ~~32~~¹, wherein the closed chamber has a thickness of less than about 2 millimeters

4. ~~34~~². The apparatus of claim ~~32~~², wherein the closed chamber has a thickness of less than about 2 millimeters

A¹ 5. ~~35~~¹. The apparatus of claim ~~34~~¹, wherein the closed chamber has a thickness of less than about 250 microns

6. ~~36~~². The apparatus of claim ~~34~~², wherein the closed chamber has a thickness of less than about 250 microns

7. ~~37~~¹. The apparatus of claim ~~34~~¹, wherein both inner surfaces are functionalized with reactive moieties

8. ~~38~~². The apparatus of claim ~~34~~², wherein both inner surfaces are functionalized with reactive moieties

9. ~~39~~¹. The apparatus of claim ~~34~~¹, wherein the bubble comprises a gas

10. ~~40~~¹ The apparatus of claim ~~31~~¹, wherein the bubble comprises a gas selected from the group consisting of air, nitrogen, argon, or oxygen.

11. ~~41~~¹ The apparatus of claim ~~31~~¹, wherein the bubble comprises a non-miscible liquid

12. ~~42~~¹ The apparatus of claim ~~31~~¹, wherein the bubble is a solid particle.

13. ~~43~~¹ The apparatus of claim ~~31~~¹, wherein the bubble is produced by introducing a volume of the fluid that is less than the total volume of the closed chamber

14. ~~44~~¹ The apparatus of claim ~~31~~¹, further including a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate.

15. ~~45~~² The apparatus of claim ~~32~~², further including a flexible seal between the inner surface of the first substrate and the inner surface of the second substrate

A' 16. ~~46~~¹ The apparatus of claim ~~31~~¹, further comprising means for introducing fluid into the closed chamber

17. ~~47~~² The apparatus of claim ~~32~~², further comprising means for introducing fluid into the closed chamber

18. ~~48~~¹ The apparatus of claim ~~31~~¹, wherein the first substrate and the second substrate are individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, ceramic, and metal, and a combination thereof.

19. ~~49~~² The apparatus of claim ~~32~~², wherein the first substrate and the second substrate are individually comprised of a material selected from the group consisting of glass, silicon, fused silica, plastic, ceramic, and metal, and a combination thereof.

20. ¹30. The apparatus of claim ¹31, wherein the first substrate and the second substrate are individually comprised of glass.

21. ²31. The apparatus of claim ²32, wherein the first substrate and the second substrate are individually comprised of glass.

22. ¹32. The apparatus of claim ¹34, wherein the means for moving the bubble is selected from the group consisting of rotating the apparatus about an axis, rolling the apparatus, and reciprocally shaking the apparatus.

23. ¹33. A method for mixing a fluid, comprising:
providing an apparatus according to claim ¹34;
introducing a fluid into the closed chamber;
introducing a bubble within the fluid; and
moving the bubble in the fluid to effect mixing of the fluid.

A-1 24. ²34. A method for mixing a fluid, comprising:
providing an apparatus according to claim ²35;
introducing a fluid into the closed chamber;
introducing a bubble within the fluid; and
moving the bubble in the fluid to effect mixing of the fluid

25. ³35. A method for mixing a fluid, comprising:
providing an apparatus according to claim ³36;
introducing a fluid into the closed chamber;
introducing a bubble within the fluid; and
moving the bubble in the fluid to effect mixing of the fluid.

26. ⁴36. A method for mixing a fluid, comprising:

providing an apparatus according to claim ⁴34;
 introducing a fluid into the closed chamber;
 introducing a bubble within the fluid; and
 moving the bubble in the fluid to effect mixing of the fluid.

27. ⁵ A method for mixing a fluid, comprising:
 providing an apparatus according to claim 35;
 introducing a fluid into the closed chamber;
 introducing a bubble within the fluid; and
 moving the bubble in the fluid to effect mixing of the fluid

28. ⁶ A method for mixing a fluid, comprising:
 providing an apparatus according to claim 36;
 introducing a fluid into the closed chamber;
 introducing a bubble within the fluid; and
 moving the bubble in the fluid to effect mixing of the fluid

29. ⁷ A method for mixing a fluid, comprising:
 providing an apparatus according to claim 37;
 introducing a fluid into the closed chamber;
 introducing a bubble within the fluid; and
 moving the bubble in the fluid to effect mixing of the fluid

30. ⁸ A method for mixing a fluid, comprising:
 providing an apparatus according to claim 38;
 introducing a fluid into the closed chamber;
 introducing a bubble within the fluid; and
 moving the bubble in the fluid to effect mixing of the fluid

REMARKS

Amendments

The new claims are identical to those allowed in parent application 09/454,520 except that the term array (e.g. Specification p.7, lines 1, 9 and 12; p.8, lines 7 and 8; etc.) is used in place of "microarray" to ensure that no extraneous limitation is read into the claim. As before, claim 31 is restricted to the subject matter of canceled claim 18, as further restricted by the limitation of canceled claim 4. Claim 32 is restricted to the subject matter of canceled claim 12, as further restricted by the limitation of canceled claim 4. Dependent claims 33-52 provide the same limitations as canceled claims 2-3, 6-10, 13, 15, 16-19. The method claims have been amended to depend on the apparatus claims. These amendments introduce no new matter.

35USC102(e)

All the claims have been restricted to subject matter indicated as allowable over the cited Schembri US Pat No. 6,186,659.


Double Patenting

A Terminal Disclaimer over US Patent No. 6,420,114 is enclosed.

The Examiner is invited to call the undersigned if he would like to amend the claims to clarify the foregoing or seeks further clarification of the claim language.

We petition for and authorize charging our Deposit Account No. 19-0750 all necessary extensions of time. The Commissioner is authorized to charge any fees or credit any overcharges relating to this communication to our Dep. Acct. No. 19-0750 (order IN-0015-1).

Respectfully submitted,
SCIENCE & TECHNOLOGY LAW GROUP



Richard Aron Osman, Ph.D., Reg. No. 36,627
Tel: (650) 343-4341; Fax: (650) 343-4342

"To Help Our Customers Get Patents"
Mission Statement, USPTO External Customer Services Guide

Request for Declaration
of interference
USSN 10/619,224
Attachment 2



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Bedillon et al.

Serial No 10/195,669

Filed: July 15, 2002

For: *Microarray Hybridization Chamber*

Group Art Unit: 1744

Examiner: Redding, David A

Attorney Docket No IN-0015-1

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H. S. (N6)
J. Redden
TO: 1703 MAIL ROOM

TERMINAL DISCLAIMER

The owners, Incyte Genomics, Inc. of 100% interest in the instant application hereby disclaim, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 to 156 and 173, as presently shortened by any terminal disclaimer, of prior patent number 6,420,114. The owners hereby agree that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding on the grantee, its successors or assigns

In making the above disclaimer, the owners do not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 USC 154 to 156 and 173 of the prior patent, as presently shortened by any terminal disclaimer, in the event that it later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

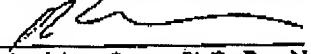
The undersigned is an attorney of record. The PTO suggested wording for terminal disclaimer was unchanged.

The Commissioner is authorized to charge the terminal disclaimer fee to deposit account no. 19-0750 (order no IN-0015-1).

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Date: December 17, 2002

Respectfully submitted,
SCIENCE & TECHNOLOGY LAW GROUP


Richard Aron Osman, Ph.D., Reg. No. 36,627
Tel: (650)343-4341; Fax: (650)343-4342

Form PTO-850 (Rev. 01-10-2001)

INTERFERENCE INITIAL MEMORANDUMCount #

To the Board of Patent Appeals and Interferences:

An interference is proposed involving the following 2 parties—

PARTY	APPLICATION NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Junior Party Bedilion et al.	09/454,520	12/6/99	6,420,114	7/16/02

If the involved is a patent, have its maintenance fees been paid? Yes ☐ No ☐ Not due yet ☒ X

Proposed priority benefit (list all intervening applications necessary for continuity):

COUNTRY	APPLICATION NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
None	None	None	None	None

The claim(s) of this party corresponding to this count:

PATENTED OR PATENTABLE PENDING CLAIMS

Patented claims 1-30

UNPATENTABLE PENDING CLAIMS

N/A

The claim(s) of this party NOT corresponding to this count:

PATENTED OR PATENTABLE PENDING CLAIMS

None

UNPATENTABLE PENDING CLAIMS

N/A

PARTY	APPLICATION NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Junior Party Bedilion et al.	10/195,669	7/15/02	6,613,529	9/2/03

If the involved is a patent, have its maintenance fees been paid? Yes ☐ No ☐ Not due yet ☒ X

Proposed priority benefit (list all intervening applications necessary for continuity):

COUNTRY	APPLICATION NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
USA	09/454,520	12/6/99	6,420,114	7/16/02
The claim(s) of this party corresponding to this count:				
PATENTED OR PATENTABLE PENDING CLAIMS			UNPATENTABLE PENDING CLAIMS	
Patented claims 1-30			N/A	
The claim(s) of this party NOT corresponding to this count:				
PATENTED OR PATENTABLE PENDING CLAIMS			UNPATENTABLE PENDING CLAIMS	
None			N/A	

PARTY Senior Party Besemer et al.	APPLICATION NO. 10/619,224	FILING DATE 7/12/03	PATENT NO., IF ANY N/A	ISSUE DATE, IF ANY N/A
If the involved is a patent, have its maintenance fees been paid? Yes <input type="checkbox"/> No <input type="checkbox"/> Not due yet <input checked="" type="checkbox"/> X				
Proposed priority benefit (list all intervening applications necessary for continuity):				

COUNTRY	APPLICATION NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
USA	10/229,759	8/28/02	N/A	N/A
USA	10/046,623	1/14/02	6,551,817	4/22/03
USA	09/907,196	7/17/01	6,399,365	6/4/02
USA	09/302,052	4/29/99	6,287,850	9/11/01
USA	08/485,452	6/7/95	5,945,334	8/31/99
USA	08/255,682	6/8/94	N/A	N/A

The claim(s) of this party corresponding to this count:

PATENTED OR PATENTABLE PENDING CLAIMS

Patentable pending claims 28-31, 34-36, 38-54, 81-84, 87-89, and 91-107

UNPATENTABLE PENDING CLAIMS

None

The claim(s) of this party NOT corresponding to this count:

PATENTED OR PATENTABLE PENDING CLAIMS

None

UNPATENTABLE PENDING CLAIMS

None

(Check off each step, if applicable) **INSTRUCTIONS**

- ☐ 1. Obtain all files listed above.
- ☐ 2. Confirm that the proposed involved claims are still active and all corrections and entered amendments have been considered. The patents must not be expired for among other things, failure to pay a maintenance fee (Check PALM screen 2970).
- ☐ 3. If one of the involved files is a published application or a patent, check for compliance with 35 U.S.C. 135(b).
- ☐ 4. Obtain a certified copy of any foreign benefit documents where necessary (37 CFR 1.55(a)).
- ☐ 5. Discuss the proposed interference with an Interference Practice Specialist in your Technology Center.

DATE	PRIMARY EXAMINER (signature)	ART UNIT	TELEPHONE NUMBER
DATE	INTERFERENCE PRACTICE SPECIALIST or TECHNOLOGY CENTER DIRECTOR (signature)		TELEPHONE NUMBER

Page _____